



December 19, 2008

DuPont Crop Protection  
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OPP Regulatory Public Docket (7502P)  
US Environmental Protection Agency  
Room S4400, One Potomac Yard (South Bldg.)  
2777 S. Crystal Drive  
Arlington, VA 22202

**SUBJECT: Docket ID Number EPA-HQ-OPP-2008-0129  
Submission of Comments to the Public Docket in Response to the  
November 12, 2008 Federal Register Notice  
Sulfometuron Methyl Reregistration Eligibility Decision  
Chemical Number 122001, Case Number 3136**

E.I. DuPont de Nemours and Company ("DuPont") is supporting the Reregistration of the herbicide active ingredient Sulfometuron Methyl (EPA Reg. No. 352-554, DuPont™ Sulfometuron Methyl Technical). As part of that effort DuPont is herein submitting comments to the Agency in response to the November 12, 2008 Federal Register Notice, via the docket as designated: Docket ID Number EPA-HQ-OPP-2008-0129.

This submission of comment is specific to the subject of Risk Mitigation and Regulatory Position related to the topic of non-target plant exposure through soil particle drift. Other Sulfometuron Methyl Reregistration Eligibility Decision (RED) subject matters will be commented on by DuPont and submitted under separate cover.

The RED for Sulfometuron Methyl describes a 2007 analysis of the Agency's Ecological Incident Information System (EIIS) that revealed 35 incidents of varying degrees of confidence involving application or misapplication of sulfometuron methyl. Of these 35 incidents one was classified by the Agency as highly probable. This incident (EIIS Incident Report 1011666-001) was described as allegedly resulting from an application of Oust® herbicide (containing sulfometuron methyl) made by the Bureau of Land Management (BLM) to Idaho forest and grasslands that had been severely damaged by wildfire. Investigations by The Idaho State Department of Agriculture (ISDA) reported that drought and windy conditions (up to 20-40 mph) following the application caused wind erosion of dry treated soil containing sulfometuron methyl, which is further alleged to have affected crop damage in excess of \$78 million.

Responding to the concern for non-target plant exposure through soil particle drift, the following mitigations are described in the Risk Mitigation and Regulatory Position section of the RED (Ref.: RED Case 3136, page 26 of 42):

- All product labels will include language requiring weather conditions meet label specifications when applications are made to powdery dry soil or light sandy soil.

- Prohibit applications in counties where the average annual rainfall is 10 inches or less.

The mitigations to address this concern are further elucidated in the Summary of Label Changes for sulfometuron methyl under the headings “Environmental Hazards”, and “Other Application Restrictions (Risk Mitigations)” (Ref.: RED Case 3136, pages 32 - 33 of 42) whereby the EPA is requiring that the following statements be added to all Sulfometuron methyl containing end-use products:

- Exposure to (Brand Name) can injure or kill plants. Damage to susceptible plants can occur when soil particles are blown or washed off target onto cropland. Wind can blow treated powdery dry soil or light sandy soil off target when rainfall does not occur within 48 hours of application. Irrigated crops will suffer the greatest injury if contacted by the pesticide or treated soil particles.
- “Do not apply (Brand Name) to powdery dry soil or light sandy soil when less than a 60% chance of rainfall is predicted to occur in the treatment area within 48 hours of application.”
- “Do not apply (Brand Name) in counties where the average annual rainfall is 10 inches or less.”

In contrast to these label changes, current labeling for all DuPont sulfometuron methyl containing end-use products registered for use on non-crop sites state the following:

Treatment of powdery, dry soil or light, sandy soil when there is little likelihood of rainfall soon after treatment may result in off target movement and possible damage to susceptible crops when soil particles are moved by wind or water. Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops. Exposure to (Brand Name) may injure or kill most crops. Injury may be more severe when the crops are irrigated. Do not apply (Brand Name) when these conditions are identified and powdery, dry soil or light or sandy soil are known to be prevalent in the area to be treated.

The most significant Environmental Hazard associated with the use of herbicides is their inherent toxicity to plants. One of the risks associated with this hazard is that herbicides have the potential to move from the target application site and injure or kill desirable vegetation. This off-target movement may occur at the time the herbicide is applied or subsequent, and the mechanisms of movement include but are not limited to, spray drift, volatilization, wind and water erosion, and movement of treated vegetation.

Sulfometuron methyl is a broad spectrum herbicide that is used for vegetation management in a variety of non-agricultural areas that include private, public and military lands such as airports, highways, railroads, and utility rights of way, sewage disposal sites, and industrial sites such as lumberyards, utility stations, and pipeline tank farms. It is used in infrastructure construction under asphalt and concrete. It is used on uncultivated agricultural areas (non crop producing) such as farmyards, fuel storage areas, fence rows, and barrier strips, and it is also used in forestry, hardwood and conifer plantations, and for selective weed control in unimproved turf grasses. Only in a fraction of these use scenarios is there a potential for movement of soil following treatment. Ballast surfaces such as those found along rights of way, railroad beds and utility stations afford minimal potential for wind erosion. Applications to roadbeds immediately prior to them being paved with asphalt or concrete are unlikely to be moved by wind. In forestry, hardwood and conifer plantations and in selective weed control in unimproved turf the existing ground covers and/or foliage canopies also limit the potential for soil erosion. All of these types of uses occur throughout the United States and include sites in counties that receive 10 inches or less of average annual rainfall.

In areas such as the southeastern United States light sandy soils may predominate and average annual rainfall far exceeds 10 inches per year. In these areas rainfall events may be relatively frequent but are not always forecasted to occur with greater than a 60% probability within 48 hours. Notably, these same locales are also susceptible to excessive rainfall events that are forecasted with extremely high probability and often result in significant soil erosion.

Applications can also be made to sites prior to rainfall events (within 48 hours) but ensuing drought and windy conditions can still result in soil erosion. The Idaho application as described in EIS 1011666-001 was made prior to a rainfall event and during the season when the greatest amount of rainfall was expected. It also occurred in an area that averages more than 10 inches of rainfall annually. But the alleged off-target movement and resulting damages are claimed to have happened over a period of weeks and months following the application.

In 1993 EPA conducted an analysis similar to the 2007 EIS. The Agency reviewed alleged crop damage incidents that had been collected since the first registration of sulfometuron methyl in 1982. The findings were conveyed in a document dated January 13, 1993 from Anthony Maciorowski, Chief of the EEB to Robert Taylor, Product Manager RD, and Lois Rossi, SRRD. It stated: "The EEB reviewed these incidents. They are not in themselves ecologically significant since the damage was to cultivated crops... . The EEB has no specific risk reduction measures to recommend. The routes of exposure which caused these incidents include wind blown soil and surface water movement from treated sites. Measures that would reduce such transport mechanisms are not feasible. Therefore, the risk cannot be reduced through use restrictions."

The concern for off site movement of soils treated with herbicides is not new, and it is not unique to sulfometuron methyl. DuPont has worked continually since 1982 when the first Sulfometuron methyl product was registered to properly steward its products. We have repeatedly engaged both Federal and State regulators in this effort. The investigation of the incident described in EIIS Incident Report 1011666-001 by the Idaho State Department of Agriculture (ISDA) did not find the product label to be at fault, but it did find that the application had been made “in a faulty, careless, and negligent manner” (January 17, 2002, letter from Mike Everett, ISDA to Martha Hahn, BLM).

EPA routinely uses modeling to assess risk prior to imposing label mitigations. ENSR International under contract to the BLM (BLM Contract No. NAD010156) issued an Ecological Risk Assessment (ERA) report for Sulfometuron methyl in November, 2005. In this ERA the transport of surface soil was modeled over five scenarios. None of the results predicted a significant herbicide migration or impact to plants, and no mitigation for this potential mechanism of off-site movement was recommended. The authors characterized the Idaho incident described in EIIS Incident Report 1011666-001 as a highly unusual situation, and could only offer suppositions as to why the modeling results were inconsistent with the Idaho incident allegations.

Some level of off-target movement will occur from nearly all pesticide applications. FIFRA, the primary law regulating pesticides, allows the registration of a pesticide if “when used in accordance with widespread and commonly recognized practice it will not generally cause an unreasonable adverse effect on humans or on the environment.” Applicators must have flexibility to assess the local conditions and use sound judgment to ensure that pesticide applications do not generally result in unreasonable adverse effects.

Product labels provide directions and precautions for the use of a product over wide geographic areas. It is impractical if not impossible to craft a label that would address all site-specific conditions in all geographies, and it is also impossible to eliminate all risks associated with the use of any herbicide. Prior to any herbicide application it is expected that the user will read and understand the contents of the label including all of its instructional and prohibitory language. It is also expected that the user will evaluate label information in the context of their intended use, and apply their professional expertise and local knowledge when making the decision as to whether the product can be used without incurring unreasonable risk.

DuPont labels attempt to clearly delineate the risks associated with the use of its products in the form of precautionary statements. In addition to the precaution related to treatment of dry powdery soil the following are just a few added examples of precautions that can be found on various DuPont sulfometuron methyl containing end-use product labels:

- Injury or loss of desirable trees or other plants may result if (Brand Name) is applied on or near desirable trees or other plants, on areas where their roots extend, or in locations where the treated soil may be washed or moved into contact with their roots.
- Injury or loss of desirable trees or other plants may result if application equipment is drained or flushed on or near desirable trees or other plants, on areas where their roots extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Applications made where runoff water flows onto agricultural land may injure crops. Applications made during periods of intense rainfall, or to soils saturated with water, surfaces paved with materials such as asphalt or concrete, or soils which rainfall will not readily penetrate may result in runoff and movement of (Brand Name).

DuPont believes that the existing label language on its sulfometuron methyl containing products clearly state the risks associated with their intended use, including the potential for both wind and water erosion. The prohibitory text that EPA is now intending to require will not prevent an incident similar EIIS 1011666-001 any more so that the current label language. But the proposed language will unjustly deprive many existing users of a valuable weed control tool where there is little if any likelihood of off-site movement of soil from treated areas. Finally, no amount of label text can prevent the misuse of a product or overcome the negligence of a user.

DuPont supports the addition of an Environmental Hazards statement that is factual and clearly states the hazard. We would respectfully propose that the Agency consider the following statement as an alternative:

**This product is toxic to plants.**

DuPont also recommends that the Agency retract its requirement that its prohibitory label language related to rainfall be added for the reasons previously outlined. Alternatively we ask that the Agency consider requiring that all sulfometuron methyl containing products, and quite possibly all herbicides labeled for use on sites that afford a potential for soil erosion by either wind or water, include a semblance of the following instructional, precautionary, and enforceable statement:

**Treatment of powdery, dry soil or light, sandy soil when there is little likelihood of rainfall soon after treatment may result in off target movement and possible damage to susceptible crops when soil particles are moved by wind or water. Injury to crops may result if treated soil is washed, blown, or moved onto land used to produce crops. Exposure to (Brand Name) may injure or kill most crops. Injury may be more severe when the crops are irrigated. Do not apply (Brand Name) when these conditions are identified and powdery, dry soil or light or sandy soil are known to be prevalent in the area to be treated.**

We appreciate the opportunity to submit comments on the Sulfometuron Methyl Reregistration Eligibility Decision. If you have any questions regarding this submission please do not hesitate to contact me immediately.

Sincerely,

A handwritten signature in black ink, appearing to read 'J.H. Cain', with a stylized flourish at the end.

J.H. (Jack) Cain  
Senior Registration Manager  
DuPont Crop Protection